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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,952	05/25/2001	Jianping Xu	884.460US1	6659

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EXAMINER

JUNG, DAVID YIUK

ART UNIT

PAPER NUMBER

2134

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/865,952	<b>Applicant(s)</b> XU, JIANPING	
	<b>Examiner</b> David Y. Jung	<b>Art Unit</b> 2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                                                       |                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                           | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/02; 2/02; 12/03</u> | 6) <input type="checkbox"/> Other: _____                                                |

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## **DETAILED ACTION**

### **CLAIMS PRESENTED**

Claims 1-17 are presented.

### **PRIOR ART**

The art made of record and not relied upon is considered pertinent to applicant's disclosure. The art disclosed general background.

Debuisser et al. (US Patent 5,717,168) has the same priority application (FR 92-13786) as that of FR 2698191 patent (cited and relied in the rejections section).

### **CLAIM REJECTIONS**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Debuisser et al. (FR 2698191, cited by Applicant; hereinafter also called "Debuisser") and Hou et al. (US Pre-Grant Publication 2001 0000666 A1, cited by Applicant; hereinafter also called "Hou").

Regarding claim 1, Debuisser teaches "An ultrasonic pen comprising:

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a pressure sensitive tip to generate a pressure signal;  
an ultrasonic transmitter to transmit pulses for position determination; and  
... transmitter to transmit the pressure signal (page 1, line 23 - page 2, line 3; page 3, line 34 - page 4, line 5; page 4, line 33 - page 5, line 11; page 8, line 29 - page 9, last line; claims 2, 11; figures 1-3: i.e., pen and transmitters)."

These passages of Debuissier do not teach such a "second" transmitter in the sense of the claim. In Debuissier, both transmitters 12, 14 are used for handling both pressure and position – instead of a dedicated transmitter for position only. See page 8, line 29 - page 9, last line.

Hou teaches such a "second" transmitter for pressure handling and another transmitter for position handling (page 1, left hand column, paragraph 6 - right-hand column, paragraph 7; page 2, left-hand column, paragraph 10; page 3, left-hand column, paragraph 37; page 4, left-hand column, paragraph 54 - right-hand column, paragraph 55; claims 1, 7-10, 16, 24, 31-34, 40, 48, 54-57, 63, 71, 77-80, 88; figures 1, 5-8: i. e., two transmitters of different signals)" for the motivation of determining position (paragraph 10, i.e., first signal as a boundary condition, comparing the second signal to one or more stored prior second signals).

Hence, it would have been obvious to those of ordinary skill in the art at the time of the claimed invention to combine Debuissier and Hou for the motivation noted in the previous paragraphs so as to teach the claimed invention.

Regarding claims 2-11, note:

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2. The ultrasonic pen of claim 1 wherein the pressure sensitive tip includes an ink dispenser: Debuissier's pen can be felt-tip pen -- figure 2 and its attendant explanation in the text of Debuissier.

3. The ultrasonic pen of claim 1 wherein the ultrasonic transmitter and the second transmitter emit energy at different frequencies: Hou's transmitters at different frequencies -- paragraph 10.

4. The ultrasonic pen of claim 3 wherein the ultrasonic transmitter emits ultrasonic energy between substantially forty kilohertz and eighty kilohertz: Debuissier, page 9 and page 4, line 33 - page 5, line 11.

5. The ultrasonic pen of claim 1 further comprising a pressure activated switch coupled to a first end of the pen, wherein the pressure activated switch is operable to turn on the ultrasonic transmitter when pressure is applied to the first end of the pen: Hou, page 4, left-hand column, paragraph 54 - right-hand column, paragraph 55.

6. The ultrasonic pen of claim 5 wherein the ultrasonic transmitter comprises a piezoelectric material: Hou, page 4, left-hand column, paragraph 54 - right-hand column, paragraph 55.

7. The ultrasonic pen of claim 6 wherein the piezoelectric material is arranged in a cylinder: Hou, page 4, left-hand column, paragraph 54 - right-hand column, paragraph 55.

8. The ultrasonic pen of claim 1 wherein the second transmitter comprises an infrared transmitter: Hou, page 4, left-hand column, paragraph 54 - right-hand column, paragraph 55.

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9. The ultrasonic pen of claim 8 wherein the second transmitter is configured to provide a time reference signal: Hou, page 4, left-hand column, paragraph 54 - right-hand column, paragraph 55.

10. The ultrasonic pen of claim 1 wherein the second transmitter comprises a radio frequency transmitter: Hou, page 4, left-hand column, paragraph 54 - right-hand column, paragraph 55.

11. The ultrasonic pen of claim 1 wherein the ultrasonic transmitter and the second transmitter are burst transmitters: Hou, page 4, left-hand column, paragraph 54 - right-hand column, paragraph 55.

Regarding claim 12, Hou teaches "A ... collection system comprising: a first ultrasonic receiver; a second ultrasonic receiver mountable on a surface a distance from the first ultrasonic receiver; a higher frequency receiver; and an ultrasonic pen having an pressure sensitive ink cartridge to dispense ink and to generate a pressure signal, the ultrasonic pen being configured to transmit the pressure signal to the higher frequency receiver, and to transmit ultrasonic energy to the first and second ultrasonic receivers (page 1, left hand column, paragraph 6 - right-hand column, paragraph 7; page 2, left-hand column, paragraph 10; page 3, left-hand column, paragraph 37; page 4, left-hand column, paragraph 54 - right-hand column, paragraph 55; claims 1, 7-10, 16, 24, 31-34, 40, 48, 54-57, 63, 71, 77-80, 88; figures 1, 5-8: i. e., two transmitters of different signals).

These passages of Hou do not teach such a "digital signature" in the sense of the claim.

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Gerpheide teaches "digital signature (page 2, line 13 - line 19; page 8. line 19 - page 9, line 3; page 10, line 10 - line 16; page 12, line 14 - page 13, line 4; page 13, line 21 - page 14, line 3; claims 5, 7, 8: i.e., signature being digitized)" for the motivation of giving visual feedback during digital recording (page 8. line 19 - page 9, line 3).

Hence, it would have been obvious to those of ordinary skill in the art at the time of the claimed invention to combine Gerpheide and Hou for the motivation noted in the previous paragraphs so as to teach the claimed invention.

Regarding claims 13-17:

13. The digital signature collection system of claim 12 further comprising a computer coupled to the first and second ultrasonic receivers and the higher frequency receiver: Gerpheide, page 12, line 14 - page 13, line 4.

14. The digital signature collection system of claim 13 wherein the computer is configured to receive time-of-arrival data from the first and second ultrasonic receivers, and configured to receive pressure signal information from the higher frequency receiver: Gerpheide, page 13, line 21 - page 14, line 3.

15. The digital signature collection system of claim 14 wherein the computer is further configured to determine a location of the ultrasonic pen versus time, a velocity of the ultrasonic pen versus time, and an acceleration of the ultrasonic pen versus time:

This feature is well known in the art for the motivation of keeping track of motion. In systems that keep track of time and position (such as illustrated at Hou, figure 1), such keeping track of motion is useful.

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16. The digital signature collection system of claim 12 wherein the higher frequency receiver comprises an infrared receiver: Gerpheide, page 13, line 21 - page 14, line 3.

17. The digital signature collection system of claim 12 wherein the higher frequency receiver comprises a radio frequency receiver: Gerpheide, page 13, line 21 - page 14, line 3.

***Conclusion***

***Points of Contact***

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

(571) 273-8300, (for formal communications intended for entry)

**Or:**



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(571) 273-3836 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Jung whose telephone number is (571) 272-3836 or Greg Morse whose telephone number is (571) 272-3838.

David Jung

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Patent Examiner

A handwritten signature in black ink, consisting of a large, stylized 'D' followed by a series of loops and a long horizontal stroke.

2/5/06